

After the Flood

By Christopher Renzulli  
and James Brown

**C**onstruction companies must continue to monitor legislative action and zoning regulations to ensure that they keep abreast of the laws that affect how they must conduct their business.

# The Effect of Changing Flood Maps in the Wake of Sandy

From the first moment that images of the now infamous crane dangling from the side of a high-rise apartment complex first appeared across New York area news broadcasts, Hurricane Sandy left no doubt that the way that

companies performed construction would change in New York City. Though the extreme wind made the initial headlines, it is not the wind that ultimately will force New York City's hand in further restricting local construction, but rather, it is the massive and unprecedented flooding that left a wake of new issues for the city to deal with. From leveled homes to material shortages to toxic mold, both opportunities and dangers have arrived quickly for the construction industry, and another hurricane season looming this summer has left both it and the city with little time to react.

### Expanding Flood Zones

In the days following Hurricane Sandy, as images of leveled homes and flooded streets flashed across television screens, it was easy to see that New York City area construction companies would have a large amount of work ahead of them rebuilding

the devastated coastlines and neighborhoods. The potential demand for construction work, however, has only increased since the storm because legislative and governmental action have potentially created the need for additional work to homes that were not previously in a designated flood zone.

In January 2013, the Federal Emergency Management Agency (FEMA) released the first phase of its Advisory Base Flood Elevation (ABFE) maps for portions of New York City affected by Hurricane Sandy. *See* Cara Buckley, *Twice as Many Structures in FEMA's Redrawn Flood Zone*, N.Y. Times, Jan. 28, 2013. The base flood elevation is the elevation of a flood that has a 1 percent chance of being equaled or exceeded in any given year. These maps estimate the potential flood risks that each building in a particular area faces and serve as the basis for the updated Flood Insurance Rate (FIR)



■ Christopher Renzulli is a partner and James Brown is an associate of Renzulli Law Firm, LLP in White Plains, New York. Mr. Renzulli's practice has an emphasis on construction law, product liability, mass tort litigation, premises liability, professional liability, and all aspects of insurance coverage disputes. In addition to DRI, he is an active member of the Professional Underwriting Society and the Defense Association of New York. Mr. Brown's practice areas include construction law, general liability defense, product liability defense, and insurance coverage. He is also a member of the Defense Association of New York and has mediated numerous cases on behalf of the State of New Jersey.

maps that FEMA will release to the public in the summer of 2013. *Id.* According to initial estimates, these new flood zone maps will double the number of homes and businesses in New York City that fall into flood zones. *Id.* Whether or not a property is in a FEMA flood zone dictates whether or not a property owner is required to obtain flood insurance and the insurance rate. Furthermore, the maps, along with local building codes, will place certain construction restrictions upon buildings located within the flood zones. Though the Flood Insurance Rate maps do not take effect for another two years, they will, and should, affect how construction companies build and rebuild in the wake of Hurricane Sandy. *Id.*

On January 31, 2013, shortly after FEMA released the updated ABFE maps for portions of New York City, the New York City Buildings Department issued emergency rule 1 RCNY 3606-04. *See* N.Y. City Building Dep't Emergency Rule 3606-04. This rule dictates that, within certain flood zones, buildings that have suffered substantial damage or require substantial improvement, discussed in further detail below, must be constructed so that the bottom floor and utilities equipment are located a certain distance at or above the base flood elevation. *Id.* Depending on the type of building (*i.e.* a single family residence or a commercial building), the height of the lowest floor of the building and the location of the utilities equipment must be built either at the base flood elevation defined by FEMA or one to three feet above it. *Id.* This practice of building above the base flood elevation is called "freeboard," and it compensates for unknown factors that could increase the height of a flood. *Id.*

Many homeowners who seek to rebuild following the hurricane now have the difficult decision of whether to incur the costs of rebuilding their homes according to building code standards that previously did not apply to their homes. *See* Cara Buckley, *Twice as Many Structures in FEMA's Redrawn Flood Zone*, N.Y. Times, Jan. 28, 2013. Though homeowners within the expanded flood zones whose properties were substantially damaged have no choice but to rebuild their homes pursuant to the more stringent building codes, homeowners who have not suffered substantial

damage may alternatively choose to rebuild their homes as they previously existed, though this decision could greatly increase their premiums for flood insurance in the future. *Id.* A third option also exists: challenging the expansion of the flood zone to include their property. This option, however, may be unreasonably expensive for homeowners because they would have to retain experts to conduct environmental studies to establish that their homes do not fall below the reconfigured flood levels. No matter which of the three options they choose, homeowners face an expensive challenge that requires balancing their need for money as they rebuild against the potential for far greater expenses in the future. *Id.*

In fact, policymakers have questioned the propriety of building at all in certain flood zones following Hurricane Sandy. *See* Thomas Kaplan, *Cuomo Seeking Home Buyouts in Flood Zones*, N.Y. Times, Feb. 3, 2013. Governor Andrew Cuomo of New York has proposed establishing a massive buyback program in which the state would purchase homes destroyed by Hurricane Sandy, demolish them, and preserve the land as undeveloped coastline. *Id.* Hoping to take advantage of funds available from the \$51 billion disaster relief package approved by Congress in January 2013, Governor Cuomo has proposed purchasing significantly damaged homes at pre-hurricane values and preserving the land as parks or natural buffers to protect coastal communities. *Id.*

### Response to the Expanding Flood Zones

Those homeowners who choose to retrofit their properties to meet the new building codes will increase the demand for construction work as homeowners race to beat the imposition of new insurance rates. Before accepting jobs in these newly minted flood zones, however, construction companies must contemplate several questions, including the following: are you building in a flood zone, was the building "substantially damaged," and is the property subject to any applicable zoning variances.

#### Are You Building in a Flood Zone?

Of course, despite the wide-reaching and unprecedented damage caused by Hur-

ricane Sandy, not every building that requires repairs will be located in a FEMA-designated flood zone. A construction company, must, therefore, identify the recent changes to the FEMA flood zone maps. These maps are available at [www.fema.gov](http://www.fema.gov), and a company should consult them before beginning any construction.

Furthermore, it is important to under-

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stand which flood zone you will build in. The minimum requirements for design flood elevation differ between Zone A and Zone V. Zone A covers those buildings that FEMA has determined can experience inundation by a 1-percent-annual-chance flood event. Zone V includes areas along coasts that can experience inundation by the 1-percent-annual-chance flood event but also experience additional hazards associated with storm-induced waves. As such, it becomes critical to know not only whether or not a property is located within a FEMA flood zone, but also which zone it is located within because this will dictate certain building requirements concerning the elevation of the lowest floor and utility equipment.

#### Was the Building "Substantially Damaged"?

Those buildings that lie within FEMA flood zones must be rebuilt to meet the requirements of the 2008 New York City Building Code if they were "substantially damaged" or "substantially improved" during damage-related rebuilding. According to the FEMA

National Flood Insurance Program, “substantial damage” has occurred when a building is damaged by any means and the cost of restoring the building to its previous condition would equal or exceed 50 percent of the market value of the building before the damage occurred. See *Answers to Questions About the NFIP*, FEMA F-084, Mar. 2011, at 25. A substantial improvement is one in

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which the cost of a rehabilitation, addition, or improvement of a building equals or exceeds 50 percent of its market value before construction or improvement started. *Id.* As a result, a construction company must take the proposed costs and the market value of the building itself into account because they may mean the difference between rebuilding a property as it previously existed or having to conform to certain other building code requirements.

To escape the 50 percent of market value threshold and the costs associated with elevating their damaged homes above the flood lines, certain property owners may seek to limit the costs of their home repairs. This will be difficult to do given the expected increased cost of construction supplies brought on by the high demand for them as many New York City metropolitan area property owners will rebuild at the same time. As a result, some homeowners who may not need to use their

homes immediately may seek to rebuild in stages, doing only what is necessary to protect the property at this time to avoid the 50 percent threshold. This approach may be short-sighted, however, as failing to rebuild above the flood line may only lead to higher flood insurance premiums. Regardless, construction companies will need to consider costs as they look for work following the hurricane as repair costs may dictate how they must conduct the repairs.

Is there a permissible variance from local building codes? Since 1983, New York City has relied on the FEMA flood zone maps to set building code restrictions on those properties located within the flood zones. Press Release, Mayor Bloomberg Announces New Measures to Allow Home and Property Owners Rebuilding After Hurricane Sandy to Meet Updated Flood Standards, PR-044-13, Jan. 31, 2013. Though the FEMA maps now designate additional areas as being within a flood zone, construction companies must still pay attention to local zoning codes that could affect how they must rebuild these homes such as height restrictions and restrictions regarding the reconstruction of pre-existing noncompliant buildings. In response to the FEMA map expansion, the City of New York responded quickly to protect the interests of those homeowners who needed to rebuild but could not meet the conflicting demands of both the FEMA maps and the New York City Building Code by suspending the enforcement of certain city zoning restrictions on buildings located within the newly designated FEMA flood zones. *Id.*

Eschewing the standard procedure to update building codes, which could take several months to pass through the city legislature, the mayor, on January 31, 2013, issued Executive Order No. 230, Emergency Order to Suspend Zoning Provisions to Facilitate Reconstruction in Accordance with Enhanced Flood Resistant Construction Standards. This order suspended the enforcement of certain zoning provisions regarding building height limitations, minimum distance requirements, yard requirements, and noncompliant buildings to ease the burden on homeowners who needed to vertically elevate or reposition a residence to meet the restrictions of the new flood maps. Exec. Order No. 230, §3(a)(i). The suspension of the code, however, does not permit

a construction company to exceed a reconstructed building’s pre-hurricane footprint dimensions, to create any new floor-area non-compliance, or to ignore the required eight-foot distance between the rear of a building and all other residences on the same or adjoining lots. *Id.* at §3(a)(ii)(A)-(C).

One of the major provisions of the Executive Order permits buildings affected by the flood zones to build above current height restrictions imposed by the building code. Exec. Order No. 230, §3(b)-(c). The maximum height of the buildings will remain the same, but rather than marking the maximum height of a building from the previous designation, such as the front yard line level or the street line, the maximum height of the building will be marked from the zoning design flood elevation. *Id.* As a result, raising their bottom floors to meet the new flood lines will not force homeowners also to reduce the height of their homes.

In addition, the Executive Order will permit certain pre-hurricane, noncompliant buildings to grandfather in those non-compliances under the new code as long as the buildings are properly elevated above the flood lines. Exec. Order No. 230, §3(d). Ordinarily, the city would not permit a property owner to rebuild a previously permitted noncompliant building that existed within a certain zone, such as a commercial business operating in a residential zone, within that zone following substantial damage. The Executive Order, however, will permit owners to rebuild these buildings in their previous locations despite the noncompliance as if the damage had never occurred. *Id.* This provision, however, does have limitations. Property owners cannot rebuild previously noncompliant residential buildings that had existed in manufacturing districts before the hurricane. Nor may they build noncompliant residential buildings within C8 districts, the only one of New York’s eight commercial zoning designations that permits both commercial and manufacturing uses, typically for automotive and other heavy commercial services that often require large amounts of land. Furthermore, the city will not permit property owners to rebuild noncompliant manufacturing buildings in residential or commercial districts unless they were originally within a C8 district. Exec. Order No. 230, §3(d)(i)(A)-(B).

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### Potential Further Changes Ahead

Additional changes seem likely to happen as a result of Hurricane Sandy. In December 2012, Mayor Michael Bloomberg and City Council Speaker Christine Quinn convened the New York City Building Resiliency Task Force, charging it with addressing new construction standards, examining the potential for retrofitting existing buildings, and developing “realistic and financially feasible timeframes for implementation.” See The Building Resiliency Task Force, Urban Green Council, [www.urbangreencouncil.org](http://www.urbangreencouncil.org). Russell Unger, the executive director of the Urban Green Council, chairs this task force, which consists of 215 members with an interest in the field of construction, including architects, engineers, contractors, property managers, property owners, attorneys, and city officials. *Id.* The task force expects to release its recommendations in the summer of 2013. *Id.*

New York City may also look to other parts of the New York City metropolitan area to inform how it will manage its post-hurricane construction. For instance, in February 2013, Nassau County Executive Edward Mangano announced that he was introducing legislation to provide a waiver of fees charged by county departments that are associated with the post-hurricane rebuilding effort. Press Release, Mangano Sends Hurricane Sandy Economic Hardship Relief Bill To Legislature, Feb. 1, 2013, [www.nassaucountyny.gov](http://www.nassaucountyny.gov). The legislation would waive fees for permits or services that are required for repairs or new construction in response to Hurricane Sandy as long as the applicant provides a FEMA identification or case number and notarized statement that the waiver is in connection with hurricane-related rebuilding efforts. *Id.* This legislation would also provide refunds to those who have already paid such fees and can provide evidence that the fees were related to post-hurricane rebuilding efforts. Though New York City has not passed similar legislation, it remains possible that it may do so given the financial burden already facing city homeowners.

### Conclusion

New York City and its surrounding suburbs have only just started to recover from the devastating effects of Hurricane Sandy. The

city may make further zoning changes and pass additional construction-related legislation to alleviate the problems of stricken residents and to prevent similar flooding in the future. As a result, construction companies must continue to monitor legislative action and zoning regulations to ensure that they keep abreast of the laws that affect how they must conduct their business. **FD**